

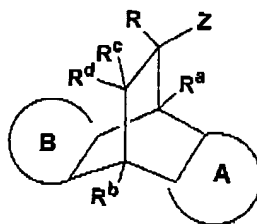
U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of claims:

1. (Currently Amended) A compound having below structure:



including all stereoisomers thereof, or a pharmaceutically acceptable salt thereof, wherein R is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl, arylalkyl, aryloxy, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, cycloalkylalkyl, cyanoalkyl, aminoalkyl, hydroxyalkyl, aryloxyalkyl, or hydroxyaryl;

R^a is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl, aryloxy, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cyano, halogen, heteroarylaminocarbonyl, cycloheteroalkylcarbonyl, cyanoalkyl, alkylaminoalkyl, hydroxyalkyl, hydroxyaryl, aryloxyalkyl, nitro, amino, CHO, CO₂ alkyl, CONR^eR^f, CH₂NR^gR^h, CO₂H, CH₂OH, CH₂NHR^g, NHCH₂R^g, NHCHR^gR^h, NHCOR^e, NHCONR^eR^f or NHSO₂R^e;

R^b is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl, aryloxy, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cyano, halogen, heteroarylaminocarbonyl, cycloheteroalkylcarbonyl, cyanoalkyl, alkylaminoalkyl, hydroxyalkyl, nitro, amino, CHO, CO₂ alkyl, hydroxyaryl, aryloxyalkyl, CONRⁱR^j, CH₂NR^kR^l, CO₂H, CH₂OH, CH₂NHR^k, NHCH₂R^k, NHCHR^kR^l, NHCORⁱ, NHCONRⁱR^j or NHSO₂Rⁱ;

where R^e and R^f are the same or different and are independently selected from hydrogen, aryl, alkyl, alkenyl, alkynyl, alkoxy, amino, alkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, ~~or~~ cycloalkylalkyl, and R^e and R^f can be taken together with the nitrogen to which they are

U.S. Serial No. 10/621,909

Attorney Docket No. QA0266 NP

attached to form a 5-, 6- or 7-membered heteroaryl or cycloheteroalkyl ring which contains 1, 2 or 3 hetero atoms which can be N, O or S;

R^g and R^h are the same or different and are independently selected from hydrogen, aryl, alkyl, alkenyl, alkynyl, alkoxy, amino, alkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, ~~or~~ and cycloalkylalkyl, and R^g and R^h can be taken together with the nitrogen to which they are attached to form a 5-, 6- or 7-membered heteroaryl ring or cycloheteroalkyl ring which contains 1, 2 or 3 hetero atoms which can be N, O or S;

R^i and R^j are the same or different and are independently selected from hydrogen, aryl, alkyl, alkenyl, alkynyl, alkoxy, amino, alkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, ~~or~~ and cycloalkylalkyl, and R^i and R^j can be taken together with the nitrogen to which they are attached to form a 5-, 6- or 7-membered heteroaryl ring or cycloheteroalkyl ring which contains 1, 2 or 3 hetero atoms which can be N, O or S;

R^k and R^l are the same or different and are independently selected from hydrogen, aryl, alkyl, alkenyl, alkynyl, alkoxy, amino, alkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, ~~or~~ and cycloalkylalkyl, and R^k and R^l can be taken together with the nitrogen to which they are attached to form a 5-, 6- or 7-membered heteroaryl ring or cycloheteroalkyl ring which contains 1, 2 or 3 hetero atoms which can be N, O or S;

R^e and R^d are the same or different and are independently selected from hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl, hydroxy, aryloxy, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, hydroxyaryl, ~~or~~ and aryloxyalkyl;

R^c and R^d may optionally be taken together with the carbon to which they are attached to form a 3- to 7-membered ring which may optionally include an O atom or an N atom;

Z is CONR^1R^2 or $\text{CH}_2\text{NR}^1\text{R}^2$ wherein at least one of R^1 and R^2 is heteroaryl and the other of R^1 and R^2 is selected from hydrogen, alkyl, alkenyl, alkynyl, alkoxy, cycloalkyl, cycloalkylalkyl, aryl, heteroaryl, heteroarylalkyl, cycloheteroalkyl, cycloalkenyl, monoalkylaminoalkyl, dialkylaminoalkyl, cycloheteroalkylalkyl, hydroxyaryl, aryloxyalkyl, alkoxyalkyl ~~or~~ and hydroxyalkyl;



the A ring represents an unsaturated 6-membered carbocyclic ring; and

U.S. Serial No. 10/621,909

Attorney Docket No. QA0266 NP

the B ring represents an unsaturated 6-membered carbocyclic ring;
with the following provisos:

I. provided that where Z is CONR^1R^2 and (a) R is CH_3 or H and R^a , R^b , R^c and R^d are each hydrogen, or (b) R^a and R^b are each hydrogen and one of R^c and R^d is alkyl, then

(1) at least one of R^1 and R^2 is heteroaryl, but where the heteroaryl is unsubstituted  or unsubstituted , then the other of R^1 and R^2 is other than hydrogen; or

(2) where one of R^1 and R^2 is phenyl which is substituted with alkyl, hydroxy, halo, C_1 - C_2 -alkoxycarbonyl or nitro, then (a) the phenyl must be substituted with at least one other group other than hydrogen, alkyl, hydroxy, halo, C_1 - C_2 -alkoxycarbonyl or nitro, except that the phenyl may be substituted with two or more halo atoms, and/or two or more hydroxy groups and/or (b) the other of R^1 and R^2 is heteroaryl; or

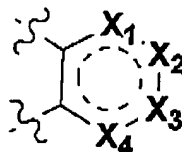
~~(3) where one of R^1 and R^2 is phenyl substituted with C_1 - C_2 -alkoxy, the phenyl cannot be substituted with a second C_1 - C_2 -alkoxy; then the other of R^1 and R^2 is heteroaryl; or~~

(4)(3) where at least one of R^1 and R^2 is hydrogen, unsubstituted alkyl, alkenyl, cycloalkyl, alkylcycloalkyl, cycloalkenyl, alkylcycloalkenyl, alkylphenyl, monoalkylaminoalkyl, dialkylaminoalkyl, arylalkyl, aryl, alkoxyalkyl or hydroxyalkyl then (a) the other of R^1 and R^2 is heteroaryl and/or (b) at least one of R^a , R^b , R^c and/or R^d is other than hydrogen and/or (c) R is other than hydrogen or C_1 - C_2 alkyl; and

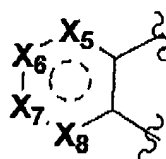
II. provided that where Z is $\text{CH}_2\text{NR}^1\text{R}^2$ and/or where at least one of R^1 and R^2 is hydrogen, alkyl, alkenyl, cycloalkyl, alkylcycloalkyl, phenyl, alkylphenyl, phenylalkyl, monoalkylaminoalkyl, dialkylaminoalkyl, arylalkyl, aryl, alkoxyalkyl, hydroxyalkyl, or cycloheteroalkyl which is 4,5-dihydro-imidazol-2-yl, piperidinyl or piperazinyl, then (a) the other of R^1 and R^2 is a heteroaryl selected from pyridinyl, pyrimidinyl, pyridazinyl, pyrazinyl or imidazolyl, and/or (b) at least one of R^a , R^b , R^c and/or R^d is other than hydrogen or C_1 - C_2 alkyl, and/or (c) R is other than hydrogen or C_1 - C_2 alkyl and/or (d) one of R^c and R^d is other than hydroxyalkyl.

2. (Currently Amended) The compound as defined in Claim 1 wherein the A ring has the structure

U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP

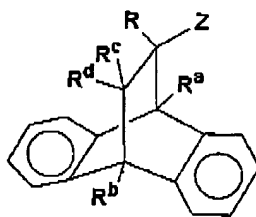


and the B ring has the structure



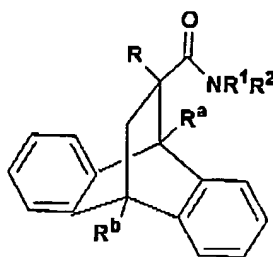
wherein X_1 , X_2 , X_3 and X_4 , are the same or different and are independently selected from CH or CR^{16} , and X_5 , X_6 , X_7 and X_8 are the same or different and are independently selected from CH or CR^{20} , wherein R^{16} , and R^{20} are the same or different and are independently selected from hydrogen, alkyl, aryl, cycloalkyl, heteroaryl, and cycloheteroalkyl.

3. (Previously Amended) The compound as defined in Claim 1 having the structure



4. (Previously Amended) The compound as defined in Claim 1 having the structure

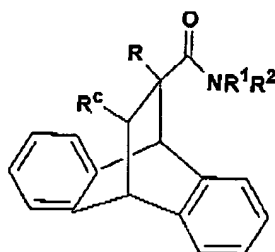
U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP



where R is H or alkyl;

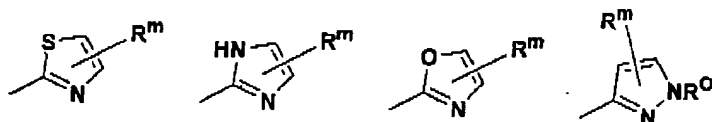
R^a is selected from H, CN, NO₂, NH₂, CHO, CO₂ alkyl, CONR^cR^f or CH₂NR^gR^h; and
R^b is selected from H, CN, NO₂, NH₂, CHO, CO₂ alkyl, CONRⁱR^j or CH₂NR^kR^l.

5. (Original) The compound as defined in Claim 1 having the structure

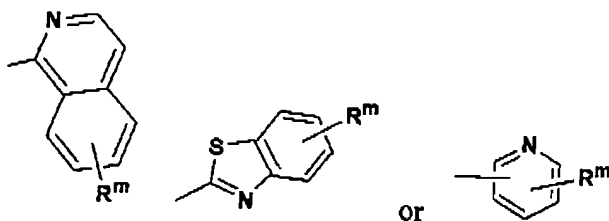


where R is H, CH₃ or C₂H₅; and R^c is H or OH,
and one of R¹ and R² is heteroaryl.

6. (Currently Amended) The compound as defined in Claim 5 wherein one of R¹ and R² is



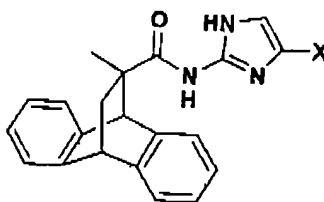
U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP



where R^m is selected from H, alkyl, aryl, heteroaryl, halo, ~~or~~ and alkoxy and R^O is H or alkyl.

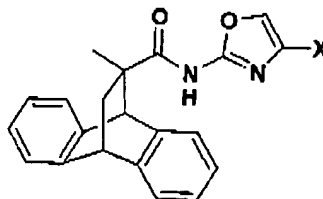
7. (Previously Amended) A compound having the structure

A.



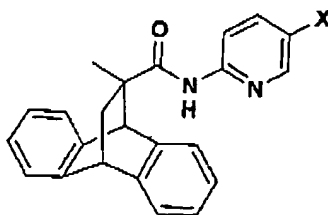
where X is aryl or alkyl;

or B.



where X is aryl;

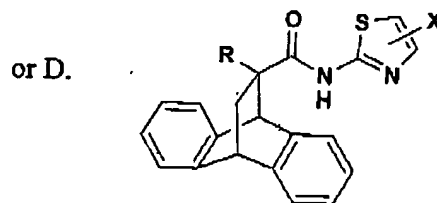
or C.



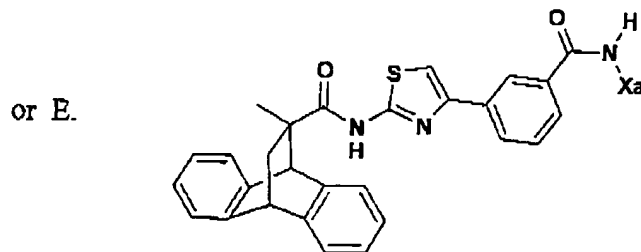
where X is aryl;

-7-

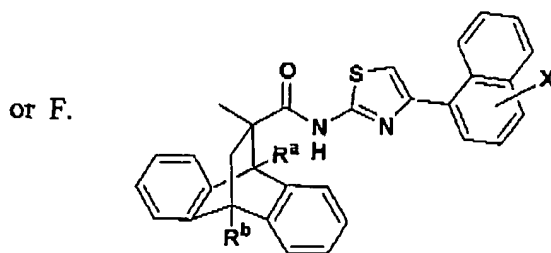
U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP



where X is aryl, alkyl, heteroaryl or halo and R is alkyl;



where X_a is aryl, heteroaryl or heteroarylalkyl,



where R^a is alkoxycarbonyl (CO₂ alkyl), nitro, cyano, or hydrogen;

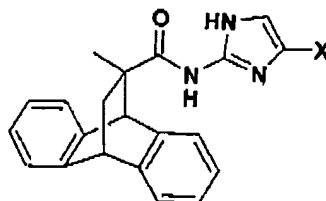
R^b is hydrogen, CO₂ alkyl, nitro, cyano, formyl, cycloheteroalkylcarbonyl, alkylaminoalkyl or amino, and

X is hydrogen, alkyl or halo.

8. (Currently Amended) The compound as defined in Claim 7 having the structure

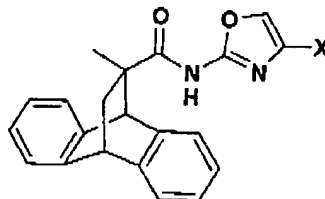
U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP

A.



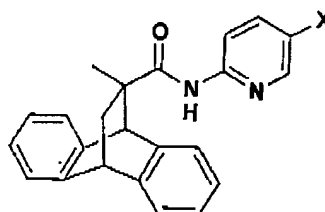
where X is 1-naphthyl, 1-(4-methyl)naphthyl, 1-(4-fluoro)naphthyl, 1-(6-methoxy)naphthyl, phenyl, or t-butyl,

or B.



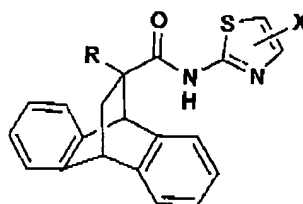
where X is 1-naphthyl,

or C.



where X = 1-naphthyl,

or D.



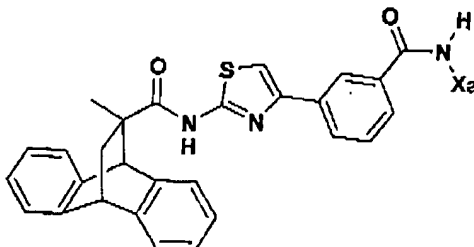
where R is CH₃ or C₂H₅ and X is phenyl, t-butyl, 1-naphthyl, 1-(4-fluoro)naphthyl, benzthiophen-3-yl, 1-(4-methyl)naphthyl, 1-(2-methoxy)naphthyl, 1-(6-methoxy)naphthyl, 3-fluorophenyl, 4-

U.S. Serial No. 10/621,909

Attorney Docket No. QA0266 NP

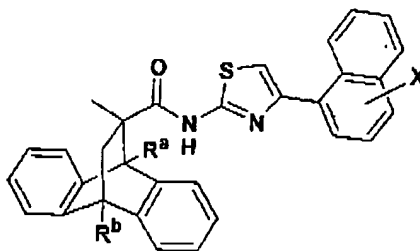
fluorophenyl, 3-methylphenyl, 2-chlorophenyl, 1-(4-methoxy)naphthyl, 1-(4-bromo)naphthyl, 1-(4-iodo)naphthyl, 5-anthracenyl, 1-anthracenyl, 4-quinolin-1-yl, 2-quinolin-1-yl, 1-(4-cyano)naphthyl, 5-iodo, 4-benzthiophenyl, 1-(2-hydroxy)naphthyl, 1-(6-hydroxy)naphthyl, or 1-(4-hydroxy)naphthyl,

or E.



where X_a is phenyl, 3-methoxyphenyl, 4-methoxyphenyl, 2,5-dimethoxyphenyl, 3,5-dimethoxyphenyl, 3-pyridyl, 2-(4-pyridyl)ethyl, 2-(4-imidazolyl)ethyl, 3-chloro-4-methoxyphenyl, 3-hydroxy-4-methoxyphenyl, 3-fluoro-4-methoxyphenyl, 3,4,5-trimethoxyphenyl, 3,4-dimethoxyphenyl, 4-methyl-3-methoxyphenyl, 3-methoxyphenyl, 3,5-dimethoxyphenyl, 2,3-dimethoxyphenyl, 4-chlorophenyl, 2-naphthyl, 3-chlorophenyl, 3,4-dichlorophenyl, 4-azidophenyl, 2,4-dimethoxyphenyl, 3-ethoxyphenyl, 3-(methylthio)phenyl, 4-(methylthio)phenyl, 3-(acetylenyl)phenyl, 4-methoxy-3-pyridyl, 3-cyanophenyl, 2-methyl-4-methoxyphenyl, 3-azidophenyl, 3-methyl-isothiazolyl, 1-methyl-pyrazol-5-yl, or 5-trifluoromethyl-1,3,4-thiadiazol-2-yl,

or F.

R^aCH₃OOC -

Nitro

Cyano

R^b

H

H

H

X

H

H

H

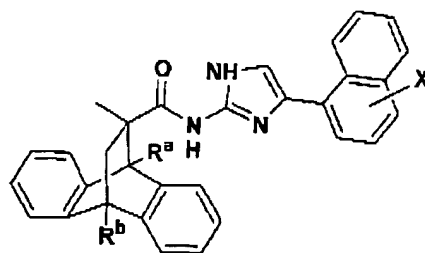
- 10 -

U.S. Serial No. 10/621,909

Attorney Docket No. QA0266 NP

CH ₃ OOC -	H	Methyl
Nitro	H	Methyl
Cyano	H	Methyl
H	CH ₃ OOC -	H
H	Nitro	H
H	Cyano	H
H	formyl	H
H	CO-(N-morpholine)	H
H	- CH ₂ -NH-Ethyl	H
H	- CH ₂ -(N-morpholine)	H
H	Nitro	Methyl
H	Cyano	Methyl
H	NH ₂	Methyl
H	Nitro	F
H	Cyano	F
H	Cl	H
H	Cl	F
H	Cl	Methyl
H	Br	F
H	Br	Methyl
H	CH ₃	H
H	CH ₃	F
H	CH ₃	Methyl

or G.

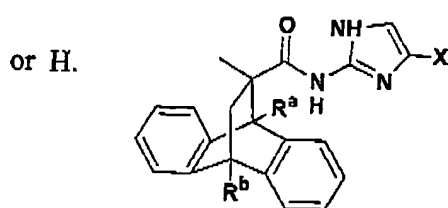


U.S. Serial No. 10/621,909

Attorney Docket No. QA0266 NP

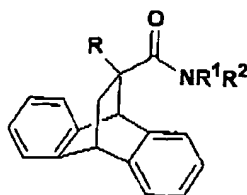
<u>R^a</u>	<u>R^b</u>	<u>X</u>
CH ₃ OOC -	H	H
Nitro	H	H
Cyano	H	H
CH ₃ OOC -	H	Methyl
Nitro	H	Methyl
Cyano	H	Methyl
H	CH ₃ OOC -	H
H	Nitro	H
H	Cyano	H
H	formyl	H
H	CO-(N-morpholine)	H
H	- CH ₂ -NH-Ethyl	H
H	- CH ₂ -(N-morpholine)	H
H	Nitro	Methyl
H	Cyano	Methyl
H	NH ₂	Methyl
H	Nitro	F
H	Cyano	F
H	Cl	H
H	Cl	F
H	Cl	Methyl
H	Br	F
H	Br	Methyl
H	CH ₃	H
H	CH ₃	F
H	CH ₃	Methyl

U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP



<u>R^a</u>	<u>R^b</u>	<u>X</u>
H	H	
H	nitro	
H	H	
H	nitro	
H	H	
H	nitro	
H	H	
H	nitro	

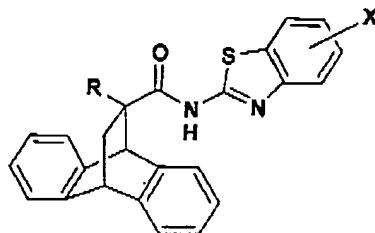
9. (Currently Amended) A compound having the structure



U.S. Serial No. 10/621,909
 Attorney Docket No. QA0266 NP

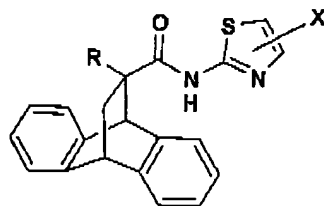
where R is CH₃, C₂H₅ or 2-hydroxyethyl, and one of R¹ and R² is H and the other of R¹ and R² is benzothiazol-2-yl, alkylbenzothiazol-2-yl, alkoxybenzothiazol-2-yl, halobenzothiazol-2-yl, thiazol-2-yl, 4-(1-naphthyl)thiazol-2-yl, 2-quinolin-1-yl, or a thiazole which is optionally substituted with heteroarylthio, heteroaryl, dialkyl, alkyl, or aryl, where the aryl may be optionally substituted with halo, alkyl, nitro, hydroxy, alkoxy, dialkoxy, carboxy, alkylaminocarbonyl, arylaminocarbonyl, hydroxyalkylaminocarbonyl, cycloheteroalkylcarbonyl, alkoxyalkylaminocarbonyl or heteroarylaminocarbonyl; with the proviso that where one of R¹ and R² is thiazol-2-yl, then R is C₂H₅ or 2-hydroxyethyl.

10. (Currently Amended) The compound as defined in Claim 9 having the structure



where X is H, 6-CH₃, 4-CH₃O, 6-Cl or 6-F;

or



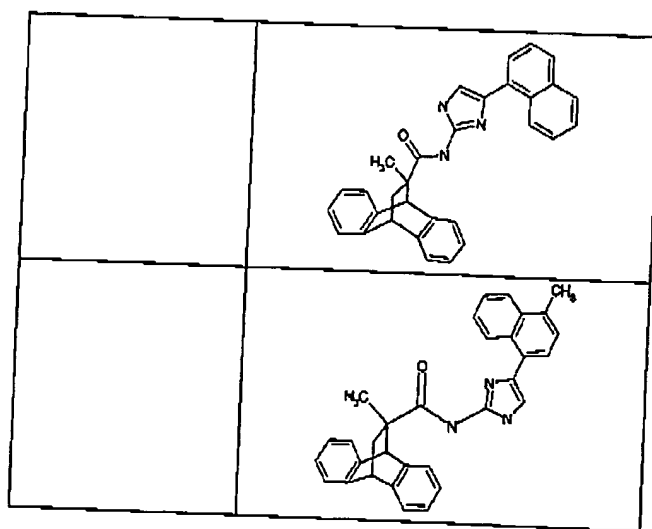
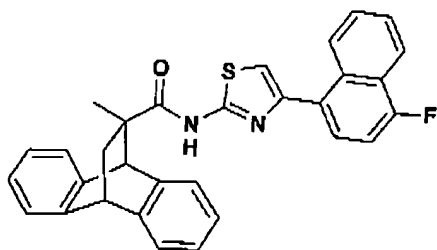
where X is 4,5-dimethyl, 5-chloro, 4-methyl, 5-methyl, 4-phenyl, 4-(1-naphthyl), 4-(2-naphthyl), 4-(4-fluoronaphth-1-yl), 4-(4-methylnaphth-1-yl), 4-(3-nitrophenyl), 4-(6-hydroxynaphth-1-yl), 4-[(1,2,4-triazol-5-yl)thio]methyl, 4-benzoic acid, 4-(4-bromonaphth-1-yl), 4-(N-ethyl)benzamide, 4-

U.S. Serial No. 10/621,909

Attorney Docket No. QA0266 NP

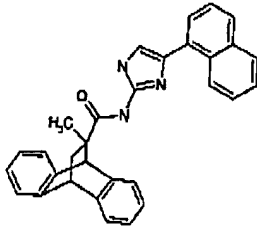
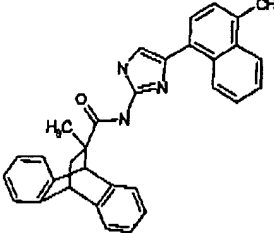
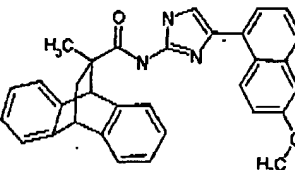
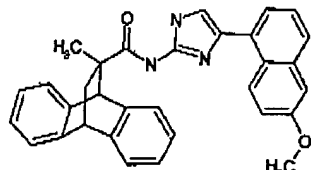
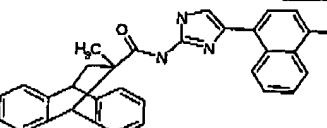
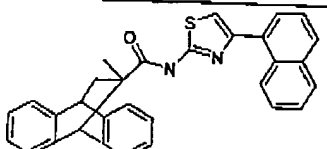
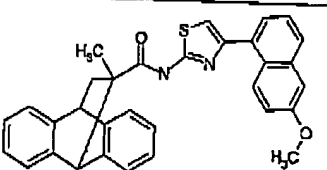
(N-2-methoxyphenyl)benzamide, 4-(N-methyl-N-2-hydroxyethyl)benzamide, 4-(N-pyrrolidinyl)benzamide, 4-(N-morpholinyl)benzamide, 4-(N-phenyl-N-methyl)benzamide, 3-(N-ethyl)benzamide, 3-(N-2-methoxyphenyl)benzamide, 3-(N-2-methoxyethyl)benzamide, 3-(N-methyl-N-2-hydroxyethyl)benzamide, 3-(N-methyl-N-phenyl)benzamide, 3-(N-4-acetylpiperazinyl-1-yl)benzamide, 3-(N-3-methoxypropyl)benzamide, 2-(6-carboxy)pyridine, 3-(N-3-hydroxy-4-methoxyphenyl)benzamide, 3-(N-3-fluoro-4-methoxyphenyl)benzamide, 3-(N-2,3-dimethoxyphenyl)benzamide, 3-(N-3-dimethoxyphenyl)benzamide, 3-(N-5-trifluoromethyl-1,3,4-thiadiazol-2-yl)benzamide, 3-(N-5-methyl-1,3,4-thiadiazol-2-yl)benzamide, 3-(N-5-chlorobenzoxazol-2-yl)benzamide, 3-(N-3-benzonitrile)benzamide, 3-(N-4-methoxypyrid-3-yl)benzamide, 5-(1,4-benzodioxane), or 4-(1,3-benzodioxole).

11. (Currently Amended) The compound as defined in Claim 1 having the structure:

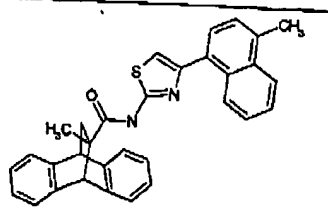
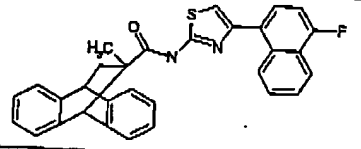
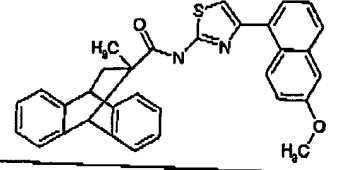
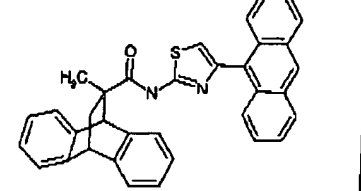
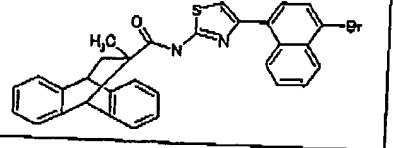
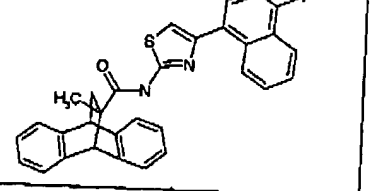
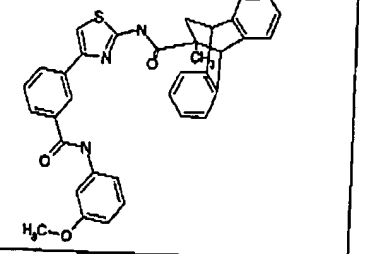


U.S. Serial No. 10/621,909

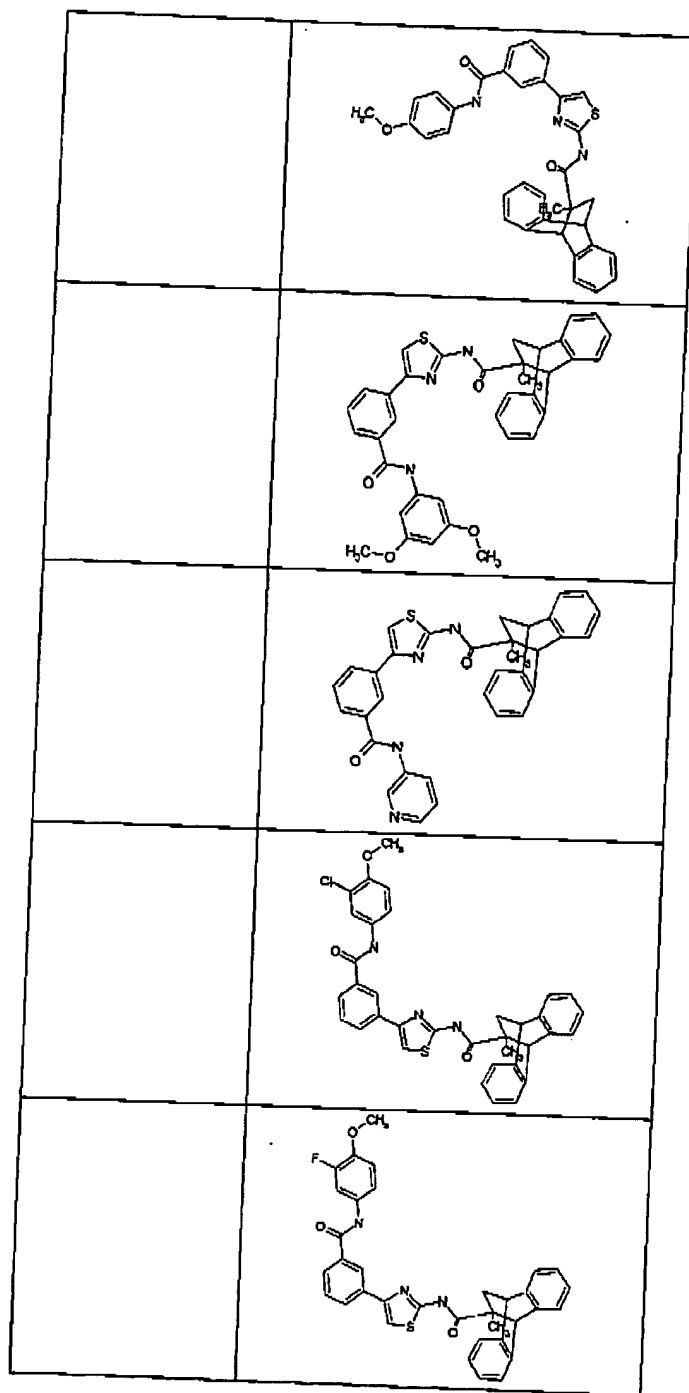
Attorney Docket No. QA0266 NP

Chiral (S)	
Chiral (S)	
	
Chiral (S)	
Chiral (S)	
Chiral (S)	
	

U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP

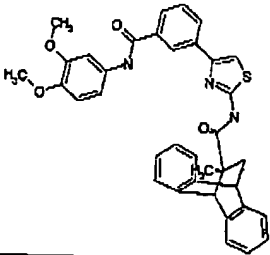
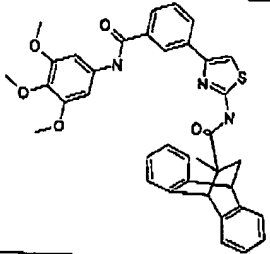
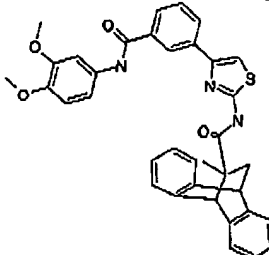
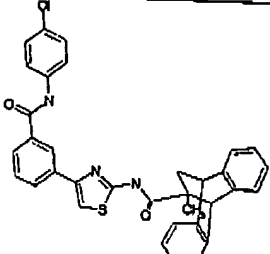
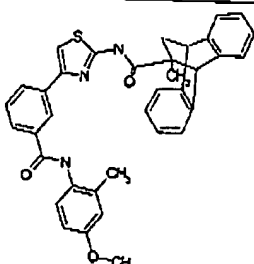
Chiral (S)	
Chiral (S)	
Chiral (S)	
Chiral (S)	
Chiral (S)	
	
	

U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP



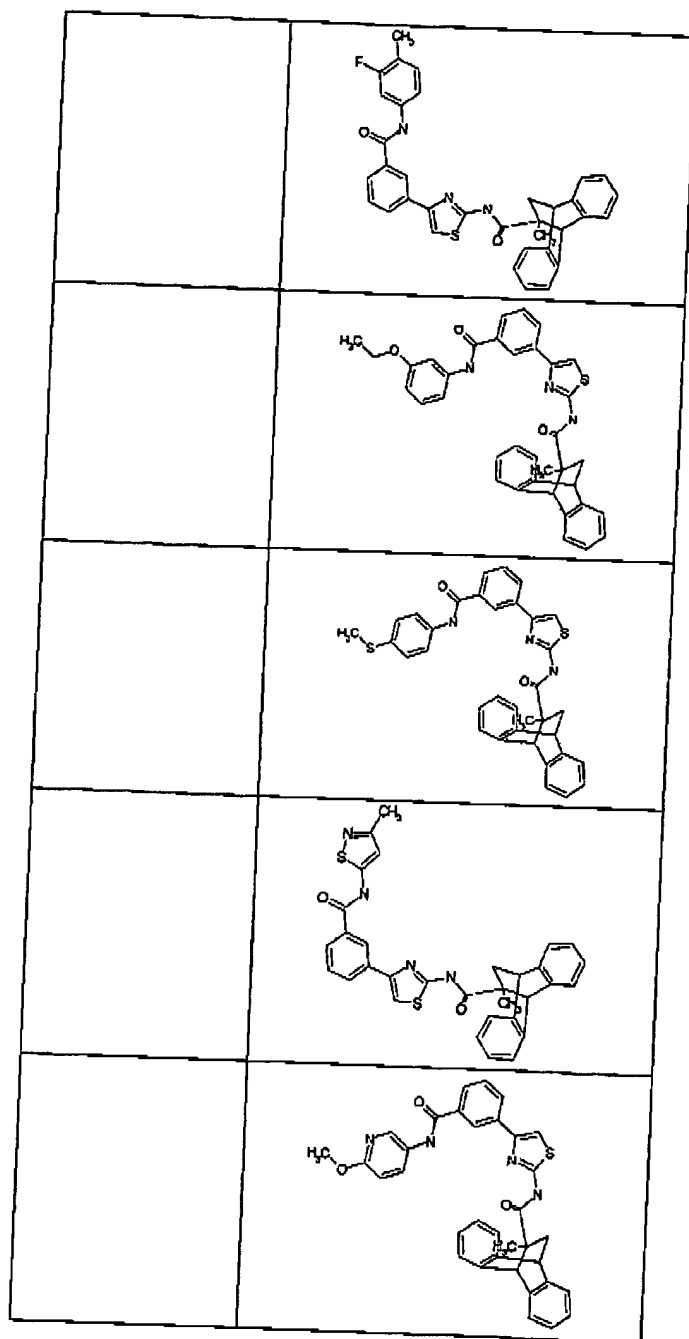
U.S. Serial No. 10/621,909

Attorney Docket No. QA0266 NP

	
Chiral (S)	
Chiral (S)	
	
	

U.S. Serial No. 10/621,909

Attorney Docket No. QA0266 NP

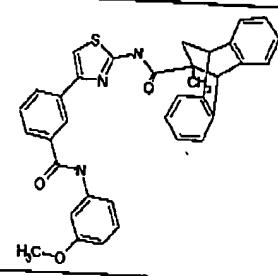
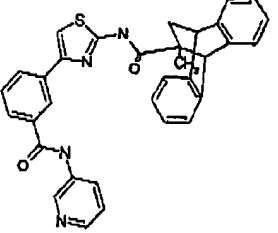
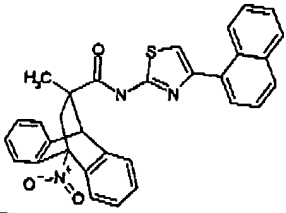
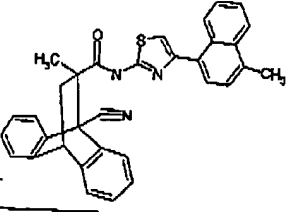
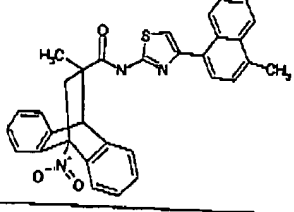
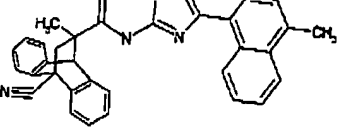


U.S. Serial No. 10/621,909

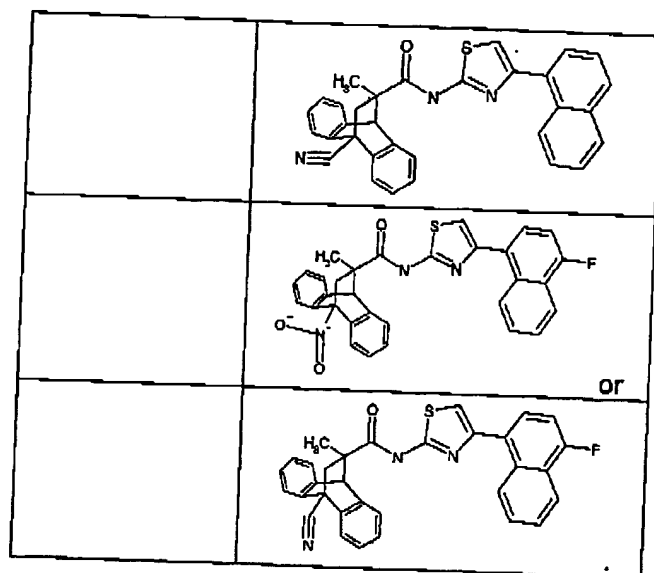
Attorney Docket No. QA0266 NP

Chiral (R)	
Chiral (R)	
Chiral (R)	
Chiral (R)	
Chiral (R)	

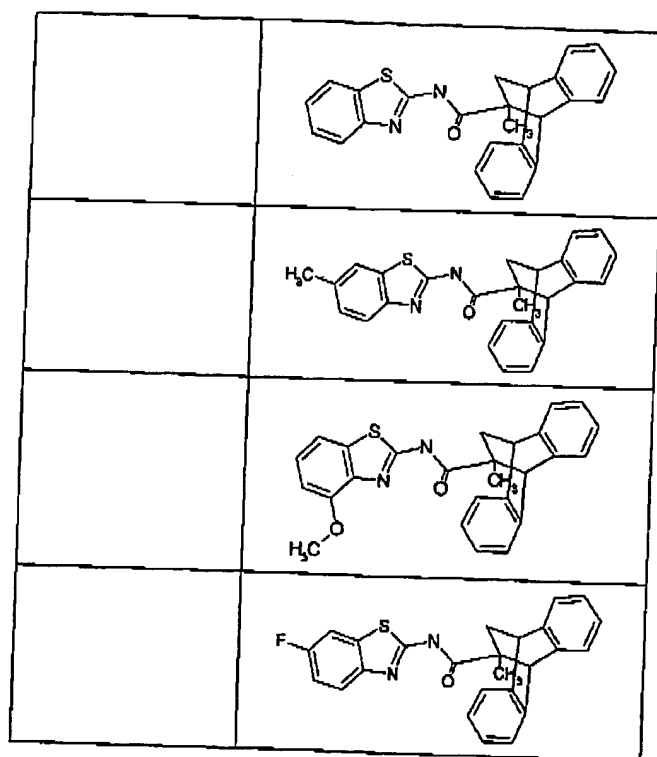
U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP

Chiral (R)	
Chiral (R)	
	
	
	
	

U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP

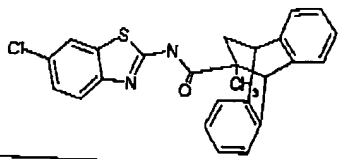
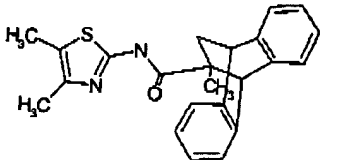
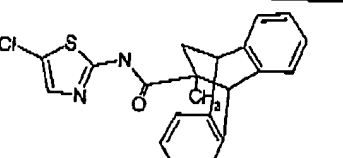
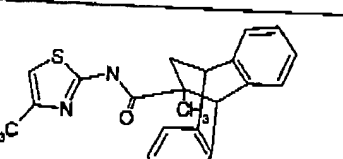
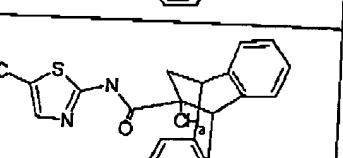
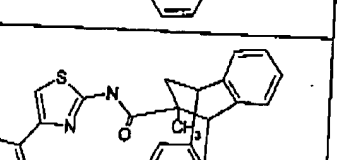
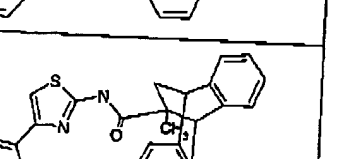
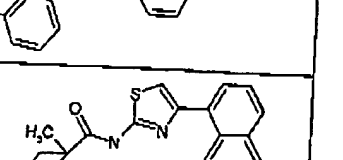


12. (Currently Amended) The compound as defined in Claim 1 having the structure:



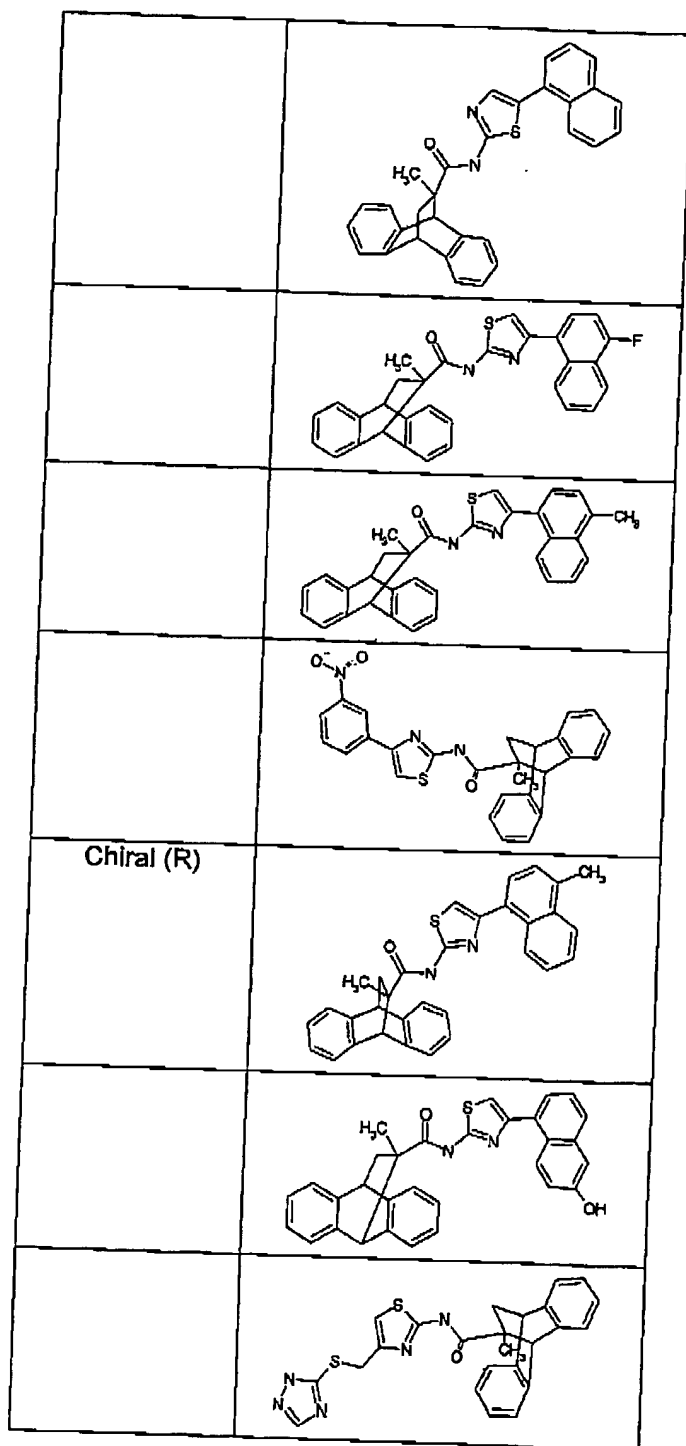
U.S. Serial No. 10/621,909

Attorney Docket No. QA0266 NP

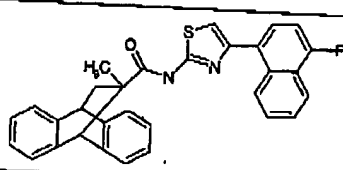
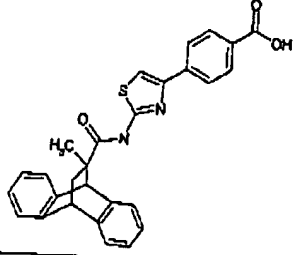
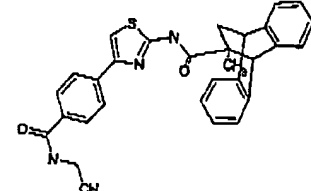
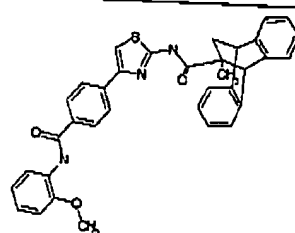
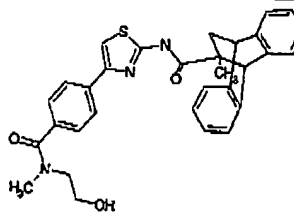
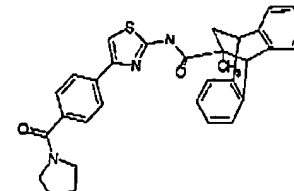
	
	
	
	
	
	
	
Chiral (R)	

U.S. Serial No. 10/621,909

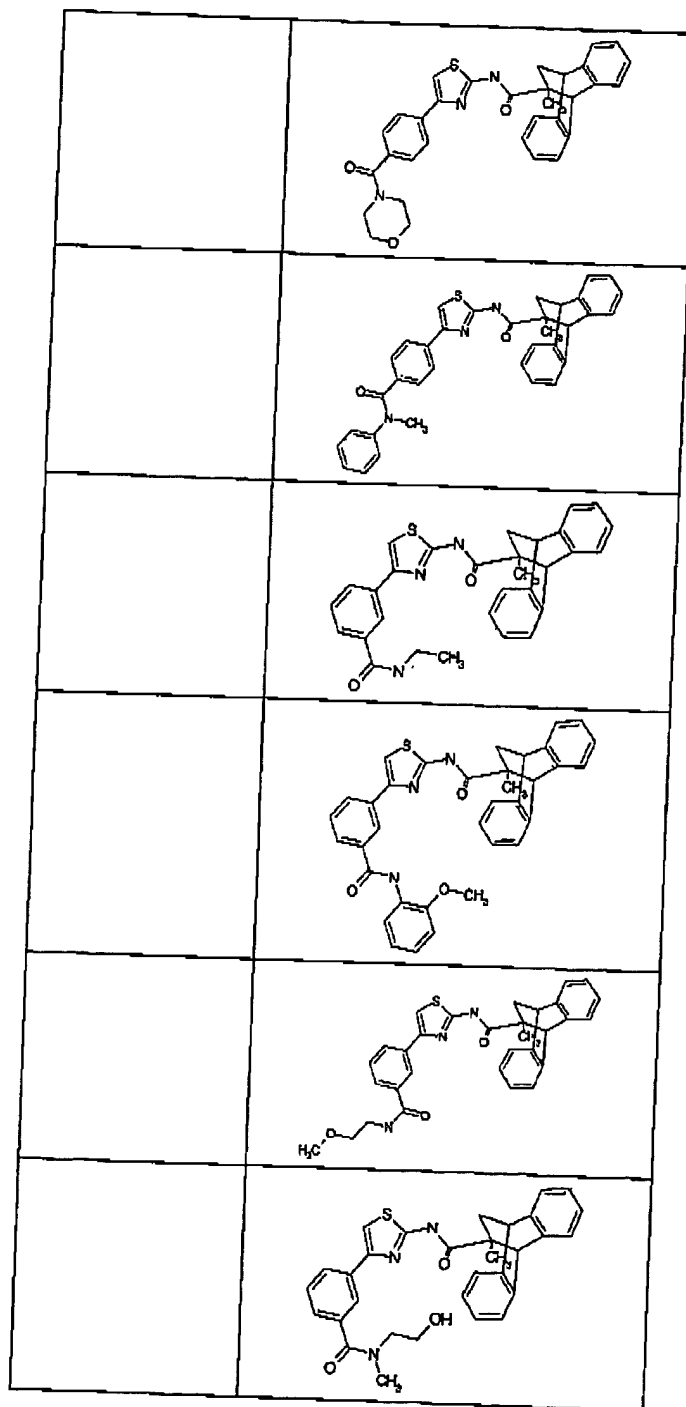
Attorney Docket No. QA0266 NP



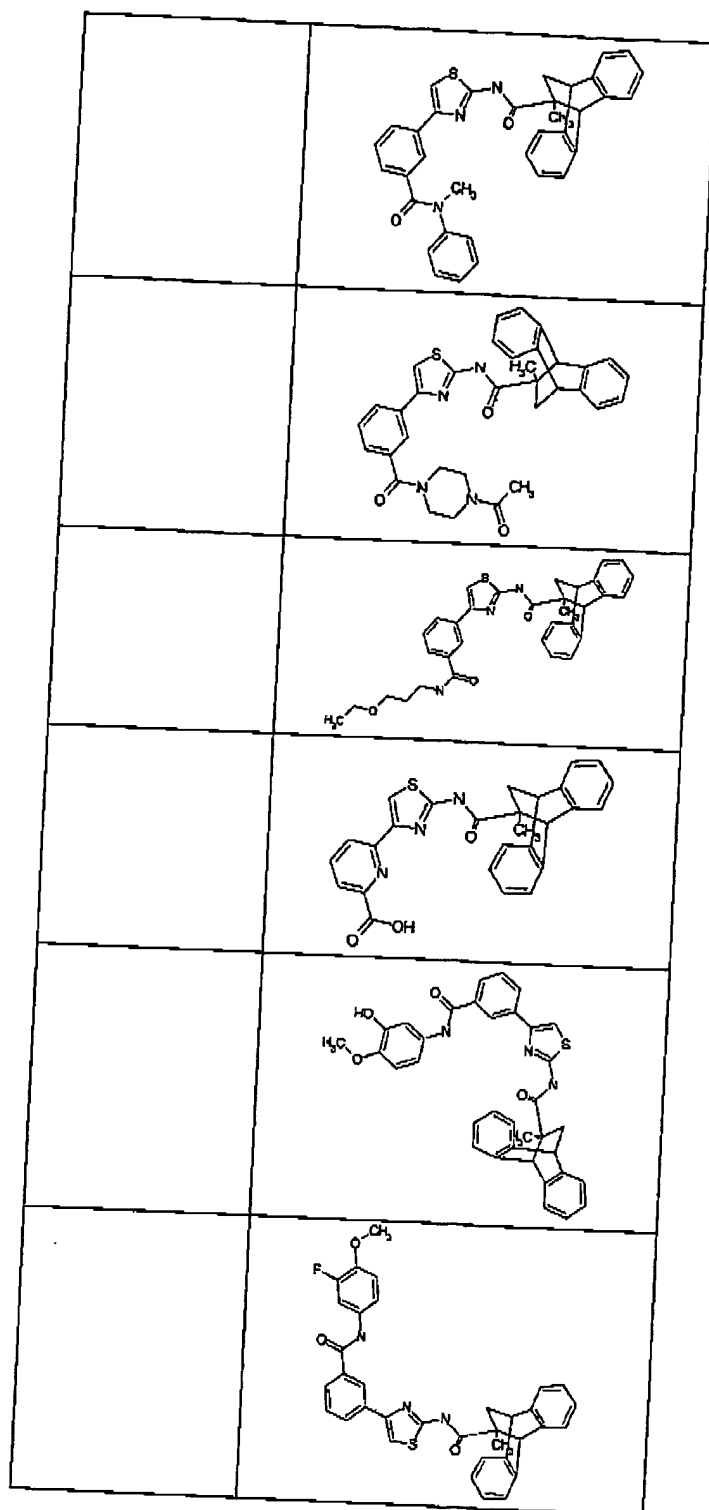
U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP

Chiral (R)	
	
	
	
	
	

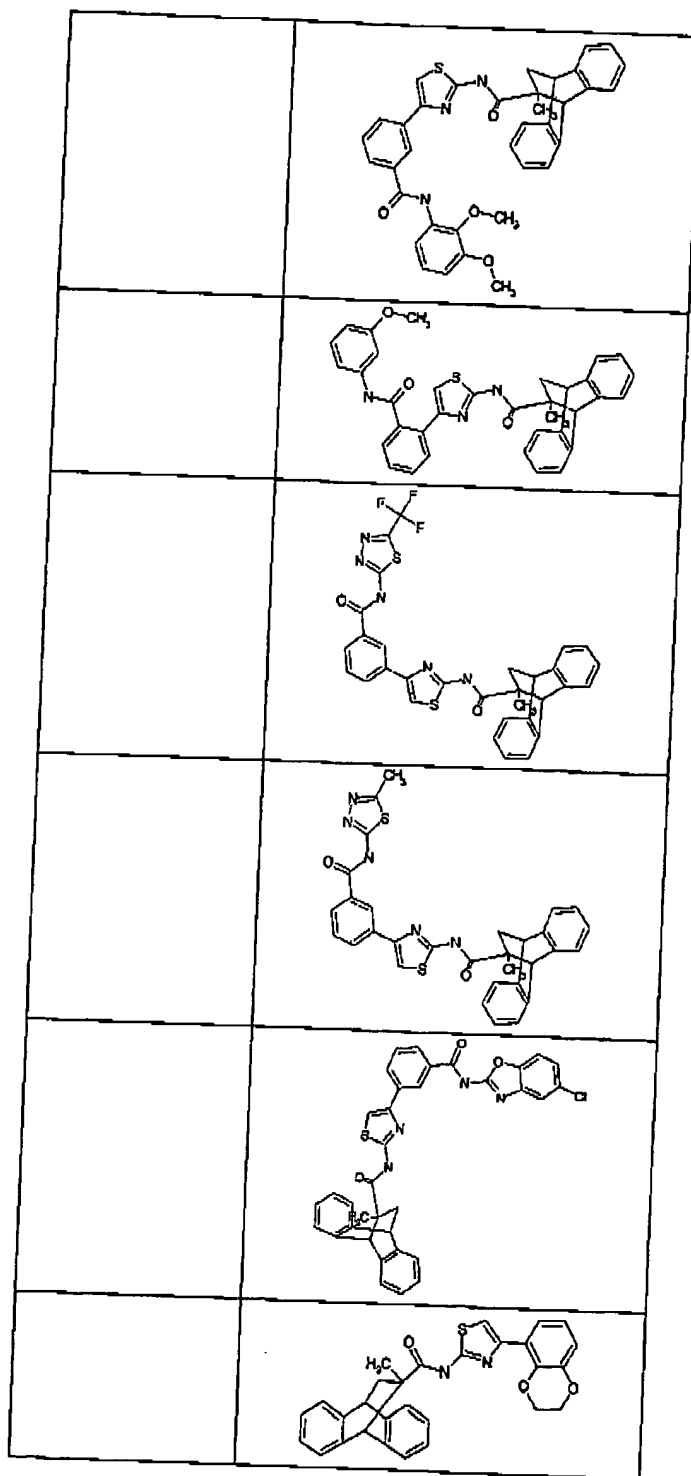
U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP



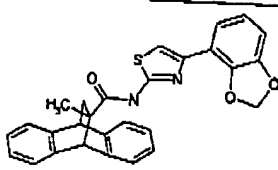
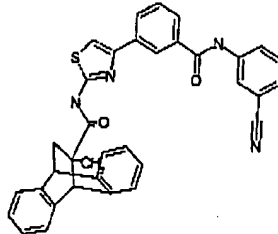
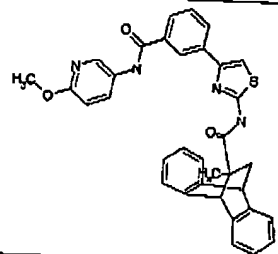
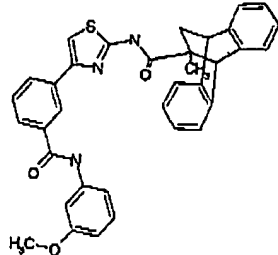
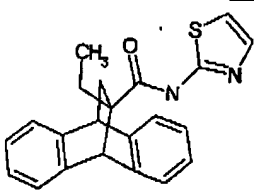
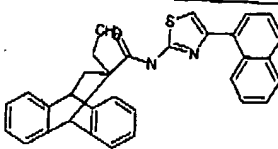
U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP



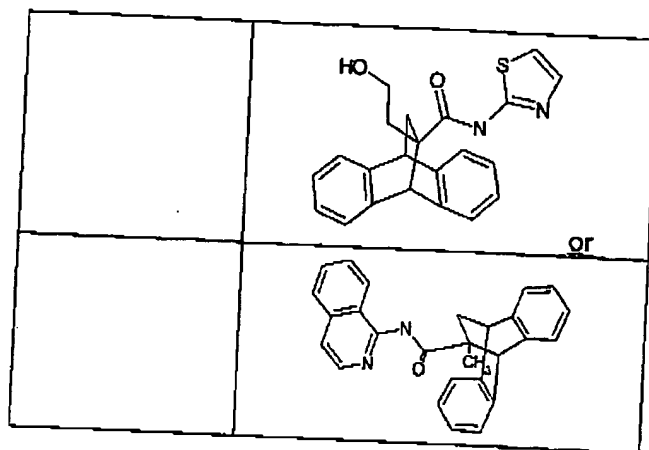
U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP



U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP

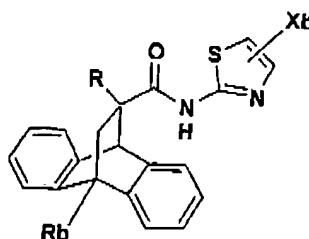
	
Chiral (R)	
Chiral (R)	
Chiral (R)	
	
	

U.S. Serial No. 10/621,909
 Attorney Docket No. QA0266 NP



13. (Canceled).

14. (Original) The compound as defined in Claim 1 having the structure;



where R is CH₃, C₂H₅ or 2-hydroxyethyl, and Rb is H, CN, NO₂, halogen, alkyl or amino;

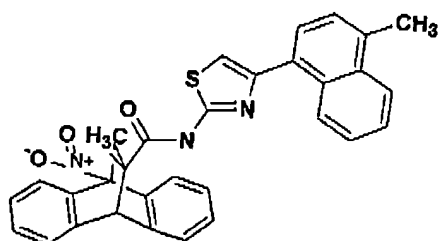
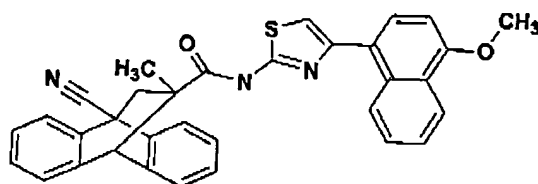
Xb is H, arylalkoxycarbonyl, arylalkylaminocarbonyl, alkoxyalkylaminocarbonyl, heteroarylcarbonyl, aryl, alkoxyalkylamidocarbonyl, arylaminocarbonyl, heteroarylaminocarbonyl, arylaminocarbonylaryl or heteroaryl;

provided that where Xb is H, then R is C₂H₅ or 2-hydroxymethyl or Rb is CN or NO₂.

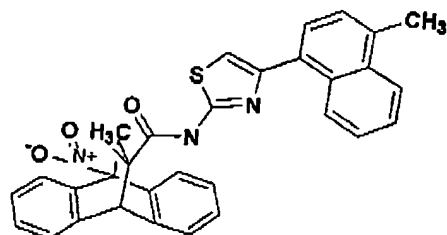
15. (Currently Amended) The compound as defined in Claim 14 having the structure

U.S. Serial No. 10/621,909

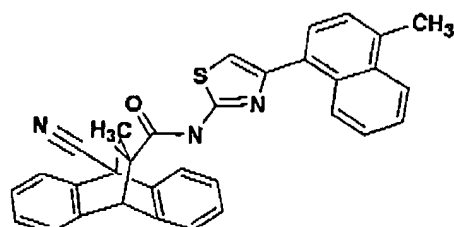
Attorney Docket No. QA0266 NP



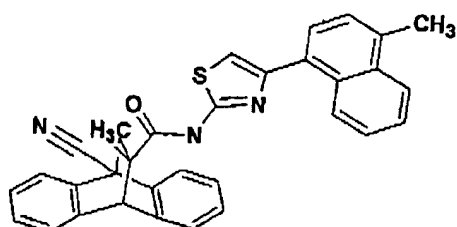
(Chiral (R))



(Chiral (S))



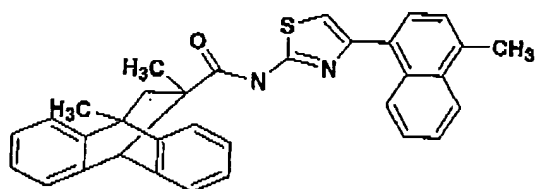
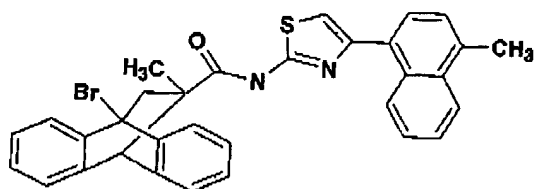
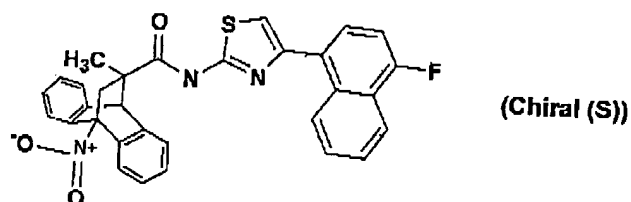
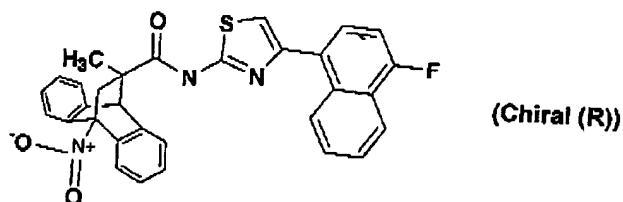
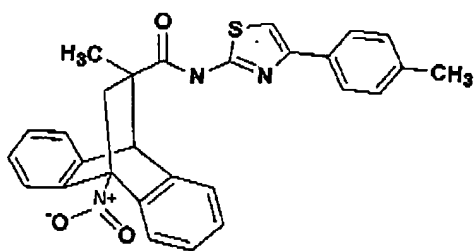
(Chiral (R))



(Chiral (S))

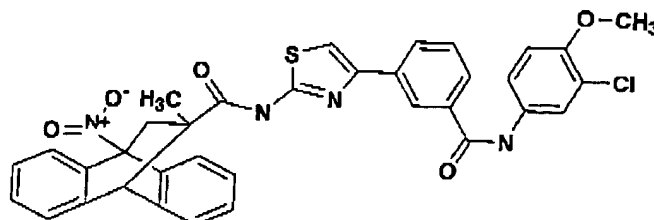
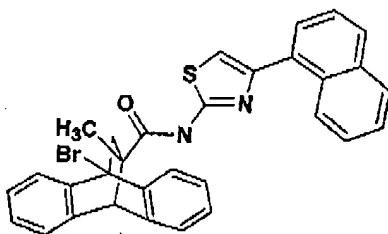
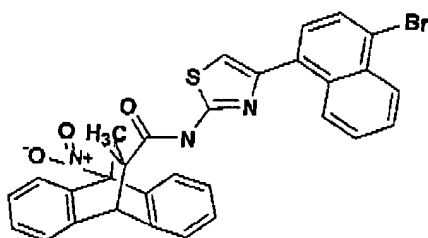
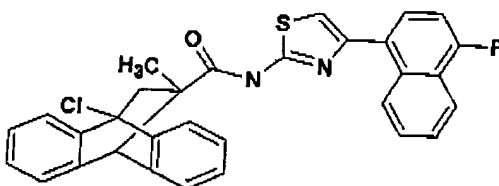
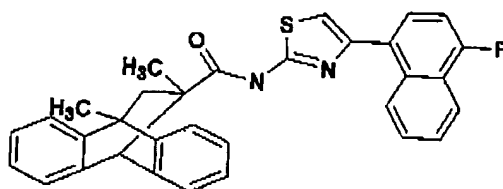
U.S. Serial No. 10/621,909

Attorney Docket No. QA0266 NP



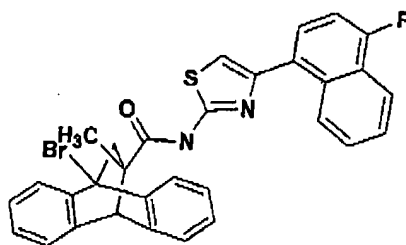
U.S. Serial No. 10/621,909

Attorney Docket No. QA0266 NP

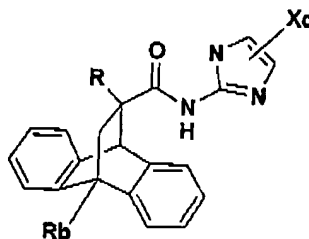


or

U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP

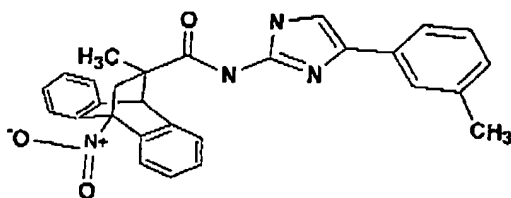
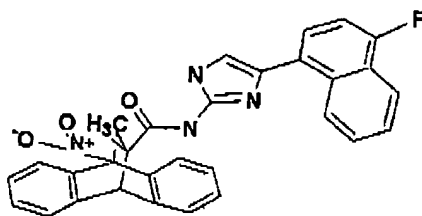


16. (Original) The compound as defined in Claim 1 having the structure

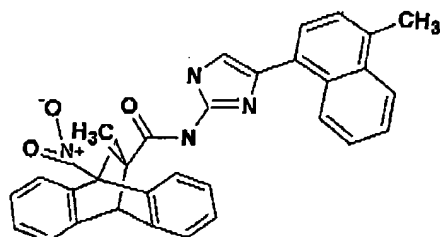
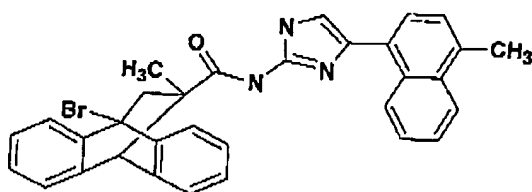
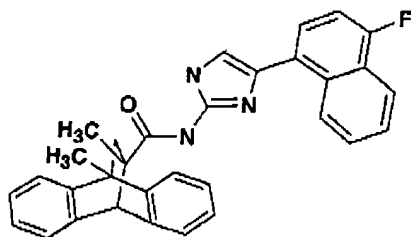
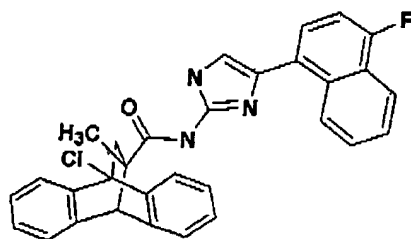
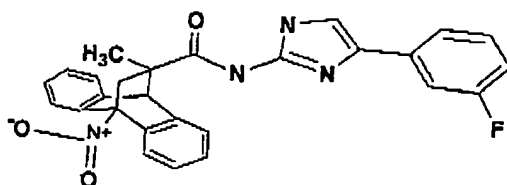


where R is CH₃, C₂H₅ or 2-hydroxyethyl, Rb is H, CN, NO₂, halogen, alkyl or amino;
and Xc is aryl, quinolinyl or isoquinolinyl.

17. (Currently Amended) The compound as defined in Claim 16 having the structure

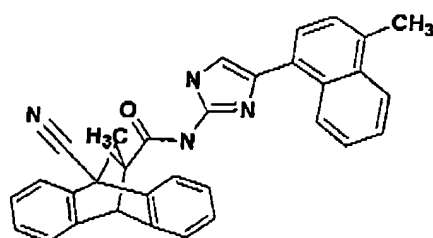
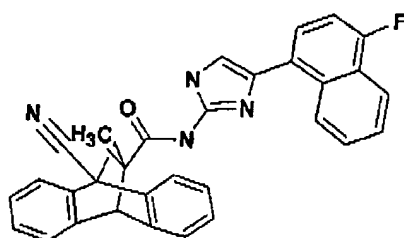
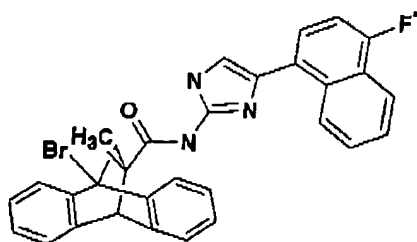
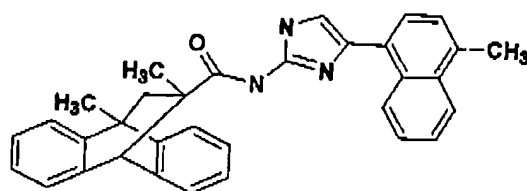
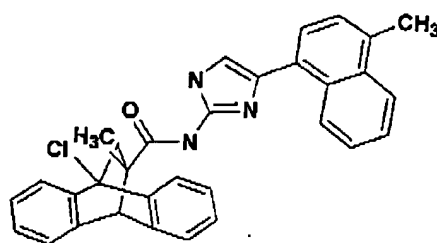


U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP

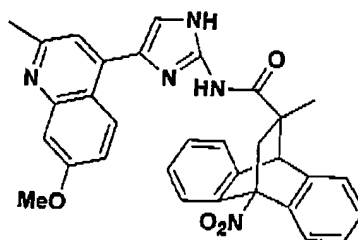
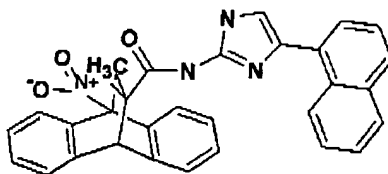
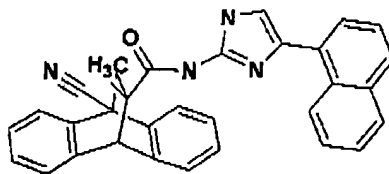
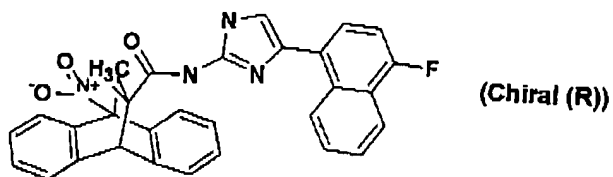
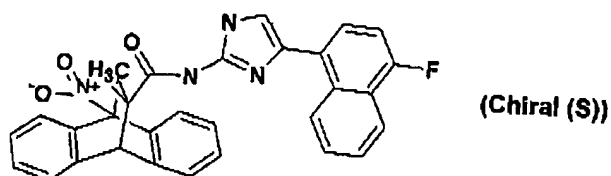


U.S. Serial No. 10/621,909

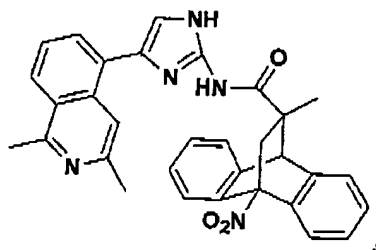
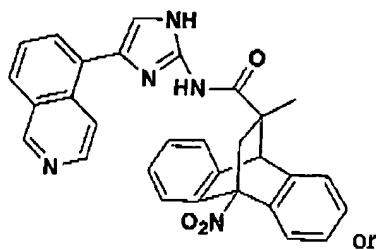
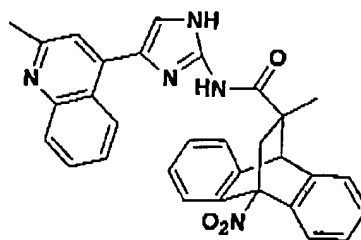
Attorney Docket No. QA0266 NP



U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP



U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP



18. (Canceled).

19. (Canceled)

20. (Canceled).

21. (Original) A pharmaceutical composition comprising a compound as defined in Claim 1 and a pharmaceutically acceptable carrier therefor.

22. (Original) A pharmaceutical combination comprising a compound as defined in Claim 1 and an immunosuppressant, an anticancer agent, an anti-viral agent, an anti-inflammatory agent, an anti-fungal agent, an anti-biotic, an anti-vascular hyperproliferation agent, an anti-depressant agent,

U.S. Serial No. 10/621,909

Attorney Docket No. QA0266 NP

a lipid-lowering agent, a lipid modulating agent, an antidiabetic agent, an anti-obesity agent, an antihypertensive agent, a platelet aggregation inhibitor, and/or an antiosteoporosis agent, wherein the antidiabetic agent is 1, 2, 3 or more of a biguanide, a sulfonyl urea, a glucosidase inhibitor, a PPAR γ agonist, a PPAR α/γ dual agonist, an SGLT2 inhibitor, a DP4 inhibitor, an $\alpha P2$ inhibitor, an insulin sensitizer, a glucagon-like peptide-1 (GLP-1), insulin and/or a meglitinide, wherein the anti-obesity agent is a beta 3 adrenergic agonist, a lipase inhibitor, a serotonin (and dopamine) reuptake inhibitor, a thyroid receptor agonist, an $\alpha P2$ inhibitor and/or an anorectic agent, wherein the lipid lowering agent is an MTP inhibitor, an HMG CoA reductase inhibitor, a squalene synthetase inhibitor, a fibric acid derivative, an upregulator of LDL receptor activity, a lipoxxygenase inhibitor, or an ACAT inhibitor, wherein the antihypertensive agent is an ACE inhibitor, angiotensin II receptor antagonist, NEP/ACE inhibitor, calcium channel blocker and/or β -adrenergic blocker.

23. (Original) The combination as defined in Claim 22 wherein the antidiabetic agent is 1, 2, 3 or more of metformin, glyburide, glimepiride, glipyrice, glipizide, chlorpropamide, gliclazide, acarbose, miglitol, pioglitazone, troglitazone, rosiglitazone, insulin, GI-262570, isaglitazone, JTT-501, NN-2344, L895645, YM-440, R-119702, AJ9677, repaglinide, nateglinide, KAD1129, AR-HO39242, GW-409544, KRP297, AC2993, LY315902, P32/98 and/or NVP-DPP-728A, wherein the anti-obesity agent is orlistat, ATL-962, AJ9677, L750355, CP331648, sibutramine, topiramate, axokine, dexamphetamine, phentermine, phenylpropanolamine, and/or mazindol, wherein the lipid lowering agent is pravastatin, lovastatin, simvastatin, atorvastatin, cerivastatin, fluvastatin, itavastatin, visastatin, fenofibrate, gemfibrozil, clofibrate, avasimibe, TS-962, MD-700, cholestagel, niacin and/or LY295427, wherein the antihypertensive agent is an ACE inhibitor which is captopril, fosinopril, enalapril, lisinopril, quinapril, benazepril, fentiapril, ramipril or moexipril; an NEP/ACE inhibitor which is omapatrilat, $[S[(R^*, R^*)]]$ -hexahydro-6-[(2-mercapto-1-oxo-3-phenylpropyl)amino]-2,2-dimethyl-7-oxo-1H-azepine-1-acetic acid (gemopatrilat) or CGS 30440; an angiotensin II receptor antagonist which is irbesartan, losartan or valsartan; amlodipine besylate, prazosin HCl, verapamil, nifedipine, nadolol, propranolol, carvedilol, or clonidine HCl, wherein the platelet aggregation inhibitor is aspirin, clopidogrel, ticlopidine, dipyridamole or ifetroban;

U.S. Serial No. 10/621,909

Attorney Docket No. QA0266 NP

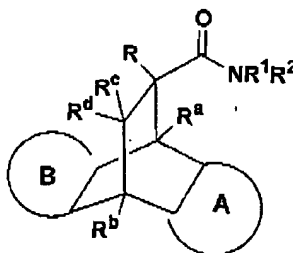
the immunosuppressant is a cyclosporin, mycophenolate, interferon-beta, deoxyspergolin, FK-506 or Ant.-IL-2;

the anti-cancer agent is azathioprine, 5-fluorouracil, cyclophosphamide, cisplatin, methotrexate, thiotepa, or carboplatin;

the anti-viral agent is abacavir, aciclovir, ganciclovir, zidancin, or vidarabine;

the antiinflammatory drug is ibuprofen, celecoxib, rofecoxib, aspirin, naproxen, ketoprofen, diclofenac sodium, indomethacin, piroxicam, prednisone, dexamethasone, hydrocortisone, or triamcinolone diacetate.

24. (Currently Amended) A method for preparing a compound having the structure:



including all stereoisomers thereof, or a pharmaceutically acceptable salt thereof, wherein R is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl, arylalkyl, aryloxy, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, cycloalkylalkyl, cyanoalkyl, aminoalkyl, hydroxyalkyl, aryloxyalkyl, or hydroxyaryl;

R^a is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl, aryloxy, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cyano, halogen, heteroarylaminoalkyl, cycloheteroalkylcarbonyl, cyanoalkyl, alkylaminoalkyl, hydroxyalkyl, hydroxyaryl, aryloxyalkyl, nitro, amino, CHO, CO₂ alkyl, CONR^cR^f, CH₂NR^gR^h, CO₂H, CH₂OH, CH₂NRH^g, NHCH₂R^g, NHCHR^gR^h, NHCOR^c, NHCONR^cR^f or NHSO₂R^c;

R^b is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl, aryloxy, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cyano, halogen, heteroarylaminoalkyl, cycloheteroalkylcarbonyl, cyanoalkyl, alkylaminoalkyl, hydroxyalkyl, nitro, amino, CHO, CO₂

U.S. Serial No. 10/621,909

Attorney Docket No. QA0266 NP

alkyl, hydroxyaryl, aryloxyalkyl, CONR^iR^j , $\text{CH}_2\text{NR}^k\text{R}^l$, CO_2H , CH_2OH , CH_2NHR^k , NHCH_2R^k , NHCHR^kR^l , NHCOR^i , $\text{NHCONR}^i\text{R}^j$ or NHSO_2R^i ;

where R^c and R^f are the same or different and are independently selected from hydrogen, aryl, alkyl, alkenyl, alkynyl, alkoxy, amino, alkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, ~~or~~and cycloalkylalkyl, and R^c and R^f can be taken together with the nitrogen to which they are attached to form a 5-, 6- or 7-membered heteroaryl or cycloheteroalkyl ring which contains 1, 2 or 3 hetero atoms which can be N, O or S;

R^g and R^h are the same or different and are independently selected from hydrogen, aryl, alkyl, alkenyl, alkynyl, alkoxy, amino, alkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, ~~or~~and cycloalkylalkyl, and R^g and R^h can be taken together with the nitrogen to which they are attached to form a 5-, 6- or 7-membered heteroaryl ring or cycloheteroalkyl ring which contains 1, 2 or 3 hetero atoms which can be N, O or S;

R^i and R^j are the same or different and are independently selected from hydrogen, aryl, alkyl, alkenyl, alkynyl, alkoxy, amino, alkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, ~~or~~and cycloalkylalkyl, and R^i and R^j can be taken together with the nitrogen to which they are attached to form a 5-, 6- or 7-membered heteroaryl ring or cycloheteroalkyl ring which contains 1, 2 or 3 hetero atoms which can be N, O or S;

R^k and R^l are the same or different and are independently selected from hydrogen, aryl, alkyl, alkenyl, alkynyl, alkoxy, amino, alkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, ~~or~~and cycloalkylalkyl, and R^k and R^l can be taken together with the nitrogen to which they are attached to form a 5-, 6- or 7-membered heteroaryl ring or cycloheteroalkyl ring which contains 1, 2 or 3 hetero atoms which can be N, O or S;

R^c and R^d are the same or different and are independently selected from hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl, hydroxy, aryloxy, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, hydroxyaryl, ~~or~~and aryloxyalkyl;

R^c and R^d can be optionally taken together with the carbon to which they are attached to form a 3- to 7-membered ring which may optionally include an O atom or an N atom;

U.S. Serial No. 10/621,909



Attorney Docket No. QA0266 NP

at least one of R^1 and R^2 is heteroaryl and the other of R^1 and R^2 is selected from hydrogen, alkyl, alkenyl, alkynyl, alkoxy, cycloalkyl, cycloalkylalkyl, aryl, heteroaryl, heteroarylalkyl, cycloheteroalkyl, cycloalkenyl, monoalkylaminoalkyl, dialkylaminoalkyl, cycloheteroalkylalkyl, hydroxyaryl, aryloxyalkyl, alkoxyalkyl ~~or~~ and hydroxyalkyl;

the A ring represents an unsaturated 6-membered carbocyclic ring which is a fused phenyl; and

the B ring represents an unsaturated 6-membered carbocyclic ring which is fused phenyl; with the following provisos:

provided that where (a) R is CH_3 or H and R^a , R^b , R^c and R^d are each hydrogen, or (b) R^a and R^b are each hydrogen and one of R^c and R^d is alkyl, then

(1) at least one of R^1 and R^2 is heteroaryl, but where the heteroaryl is unsubstituted  or unsubstituted , then the other of R^1 and R^2 is other than hydrogen; or

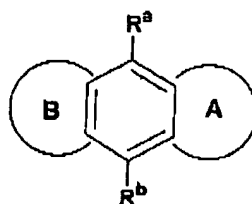
(2) where one of R^1 and R^2 is phenyl which is substituted with alkyl, hydroxy, halo, C_1 - C_2 -alkoxycarbonyl or nitro, then (a) the phenyl must be substituted with at least one other group other than hydrogen, alkyl, hydroxy, halo, C_1 - C_2 -alkoxycarbonyl or nitro, except that the phenyl may be substituted with two or more halo atoms, and/or two or more hydroxy groups and/or (b) the other of R^1 and R^2 is heteroaryl; or

~~(3) where one of R^1 and R^2 is phenyl substituted with C_1 - C_2 -alkoxy, the phenyl cannot be substituted with a second C_1 - C_2 -alkoxy, then the other of R^1 and R^2 is heteroaryl; or~~

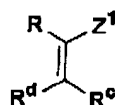
(4)(3) where at least one of R^1 and R^2 is hydrogen, unsubstituted alkyl, alkenyl, cycloalkyl, alkylcycloalkyl, cycloalkenyl, alkylcycloalkenyl, alkylphenyl, monoalkylaminoalkyl, dialkylaminoalkyl, arylalkyl, aryl, alkoxyalkyl or hydroxyalkyl then (a) the other of R^1 and R^2 is heteroaryl and/or (b) at least one of R^a , R^b , R^c and/or R^d is other than hydrogen and/or (c) R is other than hydrogen or C_1 - C_2 alkyl;

the method comprises treating a compound of the structure

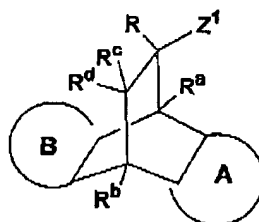
U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP



with an unsaturated compound of the structure



to form the intermediate



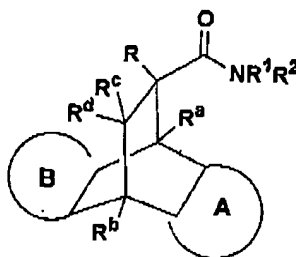
where Z^1 is CO_2H or CO_2 alkyl,

reacting the above intermediate with an amine of the structure

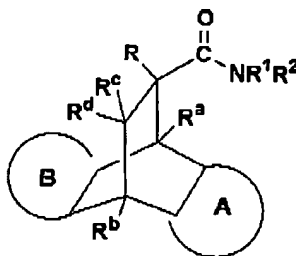


to form a compound of the structure

U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP



25. (Currently Amended) A method for preparing an amide having the structure:



including all stereoisomers thereof, or a pharmaceutically acceptable salt thereof, wherein

R is alkyl, alkenyl, alkynyl, alkoxy, aryl, arylalkyl, aryloxy, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, cycloalkylalkyl, cyanoalkyl, aminoalkyl, hydroxyalkyl, aryloxyalkyl, or hydroxyaryl;

R^a is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl, aryloxy, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cyano, halogen, heteroarylaminoalkyl, cycloheteroalkylcarbonyl, cyanoalkyl, alkylaminoalkyl, hydroxyalkyl, hydroxyaryl, aryloxyalkyl, nitro, amino, CHO, CO₂ alkyl, CONR^eR^f, CH₂NR^gR^h, CO₂H, CH₂OH, CH₂NHR^g, NHCH₂R^g, NHCHR^gR^h, NHCOR^e, NHCONR^eR^f or NHSO₂R^e;

R^b is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl, aryloxy, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cyano, halogen, heteroarylaminoalkyl, cycloheteroalkylcarbonyl, cyanoalkyl, alkylaminoalkyl, hydroxyalkyl, nitro, amino, CHO, CO₂ alkyl, hydroxyaryl, aryloxyalkyl, CONRⁱR^j, CH₂NR^kR^l, CO₂H, CH₂OH, CH₂NHR^k, NHCH₂R^k, NHCHR^kR^l, NHCORⁱ, NHCONRⁱR^j or NHSO₂Rⁱ;

where R^e and R^f are the same or different and are independently selected from hydrogen, aryl, alkyl, alkenyl, alkynyl, alkoxy, amino, alkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl,

U.S. Serial No. 10/621,909

Attorney Docket No. QA0266 NP

heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, ~~or~~and cycloalkylalkyl, and R^e and R^f can be taken together with the nitrogen to which they are attached to form a 5-, 6- or 7-membered heteroaryl or cycloheteroalkyl ring which contains 1, 2 or 3 hetero atoms which can be N, O or S;

R^g and R^h are the same or different and are independently selected from hydrogen, aryl, alkyl, alkenyl, alkynyl, alkoxy, amino, alkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, ~~or~~and cycloalkylalkyl, and R^g and R^h can be taken together with the nitrogen to which they are attached to form a 5-, 6- or 7-membered heteroaryl ring or cycloheteroalkyl ring which contains 1, 2 or 3 hetero atoms which can be N, O or S;

Rⁱ and R^j are the same or different and are independently selected from hydrogen, aryl, alkyl, alkenyl, alkynyl, alkoxy, amino, alkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, ~~or~~and cycloalkylalkyl, and Rⁱ and R^j can be taken together with the nitrogen to which they are attached to form a 5-, 6- or 7-membered heteroaryl ring or cycloheteroalkyl ring which contains 1, 2 or 3 hetero atoms which can be N, O or S;

R^k and R^l are the same or different and are independently selected from hydrogen, aryl, alkyl, alkenyl, alkynyl, alkoxy, amino, alkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, ~~or~~and cycloalkylalkyl, and R^k and R^l can be taken together with the nitrogen to which they are attached to form a 5-, 6- or 7-membered heteroaryl ring or cycloheteroalkyl ring which contains 1, 2 or 3 hetero atoms which can be N, O or S;

R^e and R^d are the same or different and are independently selected from hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl, hydroxy, aryloxy, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, hydroxyaryl, ~~or~~and aryloxyalkyl;



R^e and R^d can be optionally taken together with the carbon to which they are attached to form a 3- to 7-membered ring which may optionally include an O atom or an N atom;

at least one of R¹ and R² is heteroaryl and the other of R¹ and R² is selected from hydrogen, alkyl, alkenyl, alkynyl, alkoxy, cycloalkyl, cycloalkylalkyl, aryl, heteroaryl, heteroarylalkyl, cycloheteroalkyl, cycloalkenyl, monoalkylaminoalkyl, dialkylaminoalkyl, cycloheteroalkylalkyl, hydroxyaryl, aryloxyalkyl, alkoxyalkyl ~~or~~and hydroxyalkyl;

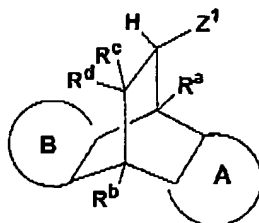
U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP

the A ring represents an unsaturated 6-membered carbocyclic ring which is a fused phenyl;
and

the B ring represents an unsaturated 6-membered carbocyclic ring which is fused phenyl;
with the following provisos:

- (1) at least one of R^1 and R^2 is heteroaryl, but where the heteroaryl is unsubstituted  or unsubstituted , then the other of R^1 and R^2 is other than hydrogen; or
- (2) where one of R^1 and R^2 is phenyl which is substituted with alkyl, hydroxy, halo, C_1 - C_2 -alkoxycarbonyl or nitro, then (a) the phenyl must be substituted with at least one other group other than hydrogen, alkyl, hydroxy, halo, C_1 - C_2 -alkoxycarbonyl or nitro, except that the phenyl may be substituted with two or more halo atoms, and/or two or more hydroxy groups and/or (b) the other of R^1 and R^2 is heteroaryl; or
- ~~(3) where one of R^1 and R^2 is phenyl substituted with C_1 - C_2 alkoxy, the phenyl cannot be substituted with a second C_1 - C_2 alkoxy, then the other of R^1 and R^2 is heteroaryl; or~~
- (4)(3) where at least one of R^1 and R^2 is hydrogen, unsubstituted alkyl, alkenyl, cycloalkyl, alkylcycloalkyl, cycloalkenyl, alkylcycloalkenyl, alkylphenyl, monoalkylaminoalkyl, dialkylaminoalkyl, arylalkyl, aryl, alkoxyalkyl or hydroxyalkyl then (a) the other of R^1 and R^2 is heteroaryl and/or (b) at least one of R^a , R^b , R^c and/or R^d is other than hydrogen and/or (c) R is other than hydrogen or C_1 - C_2 alkyl;

the method comprises treating a compound of the structure

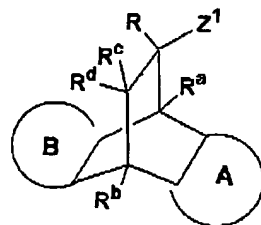


where Z^1 is CO_2H or CO_2 alkyl, with a base and a compound of the structure

U.S. Serial No. 10/621,909
 Attorney Docket No. QA0266 NP

R-LG

where LG is a leaving group, to form the compound of the structure

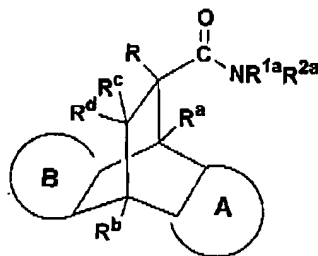


and treating the above compound with an amine of the structure

HNR^1R^2

to form the corresponding amide.

26. (Currently Amended) A method for preparing an amide compound having the structure:



including all stereoisomers thereof, or a pharmaceutically acceptable salt thereof, wherein R is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl, arylalkyl, aryloxy, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, cycloalkylalkyl, cyanoalkyl, aminoalkyl, hydroxyalkyl, aryloxyalkyl, or hydroxyaryl;

U.S. Serial No. 10/621,909

Attorney Docket No. QA0266 NP

R^a is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl, aryloxy, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cyano, halogen, heteroarylamino, carbonyl, cycloheteroalkylcarbonyl, cyanoalkyl, alkylaminoalkyl, hydroxyalkyl, hydroxyaryl, aryloxyalkyl, nitro, amino, CHO, CO₂ alkyl, CONR^eR^f, CH₂NR^gR^h, CO₂H, CH₂OH, CH₂NR^g, NHCH₂R^g, NHCHR^gR^h, NHCOR^e, NHCONR^eR^f or NHSO₂R^e;

R^b is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl, aryloxy, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cyano, halogen, heteroarylamino, carbonyl, cycloheteroalkylcarbonyl, cyanoalkyl, alkylaminoalkyl, hydroxyalkyl, nitro, amino, CHO, CO₂ alkyl, hydroxyaryl, aryloxyalkyl, CONRⁱR^j, CH₂NR^kR^l, CO₂H, CH₂OH, CH₂NR^k, NHCH₂R^k, NHCHR^kR^l, NHCORⁱ, NHCONRⁱR^j or NHSO₂Rⁱ;

where R^e and R^f are the same or different and are independently selected from hydrogen, aryl, alkyl, alkenyl, alkynyl, alkoxy, amino, alkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, ~~or~~ and cycloalkylalkyl, and R^e and R^f can be taken together with the nitrogen to which they are attached to form a 5-, 6- or 7-membered heteroaryl or cycloheteroalkyl ring which contains 1, 2 or 3 hetero atoms which can be N, O or S;

R^g and R^h are the same or different and are independently selected from hydrogen, aryl, alkyl, alkenyl, alkynyl, alkoxy, amino, alkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, ~~or~~ and cycloalkylalkyl, and R^g and R^h can be taken together with the nitrogen to which they are attached to form a 5-, 6- or 7-membered heteroaryl ring or cycloheteroalkyl ring which contains 1, 2 or 3 hetero atoms which can be N, O or S;

R^i and R^j are the same or different and are independently selected from hydrogen, aryl, alkyl, alkenyl, alkynyl, alkoxy, amino, alkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, ~~or~~ and cycloalkylalkyl, and R^i and R^j can be taken together with the nitrogen to which they are attached to form a 5-, 6- or 7-membered heteroaryl ring or cycloheteroalkyl ring which contains 1, 2 or 3 hetero atoms which can be N, O or S;

R^k and R^l are the same or different and are independently selected from hydrogen, aryl, alkyl, alkenyl, alkynyl, alkoxy, amino, alkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, or cycloalkylalkyl, and R^k and

U.S. Serial No. 10/621,909
Attorney Docket No. QA0266 NP

R^1 can be taken together with the nitrogen to which they are attached to form a 5-, 6- or 7-membered heteroaryl ring or cycloheteroalkyl ring which contains 1, 2 or 3 hetero atoms which can be N, O or S;

R^c and R^d are the same or different and are independently selected from hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl, hydroxy, aryloxy, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, hydroxyaryl, ~~or~~ and aryloxyalkyl;

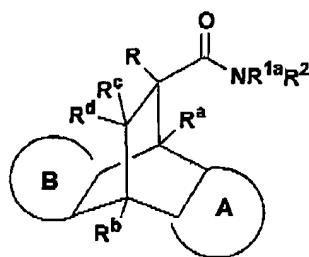
R^c and R^d can be optionally taken together with the carbon to which they are attached to form a 3- to 7-membered ring which may optionally include an O atom or an N atom;

at least one of R^{1a} and R^{2a} is heteroaryl and the other of R^{1a} and R^{2a} is selected from alkyl, alkenyl, alkynyl, alkoxy, cycloalkyl, cycloalkylalkyl, aryl, heteroaryl, heteroarylalkyl, cycloheteroalkyl, cycloalkenyl, monoalkylaminoalkyl, dialkylaminoalkyl, cycloheteroalkylalkyl, hydroxyaryl, aryloxyalkyl, alkoxyalkyl ~~or~~ and hydroxyalkyl;

the A ring represents an unsaturated 6-membered carbocyclic ring; and

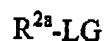
the B ring represents an unsaturated 6-membered carbocyclic ring;

the method comprises treating a compound



where R^2 is H ;

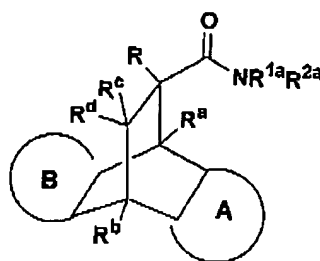
with a base and a compound of the structure



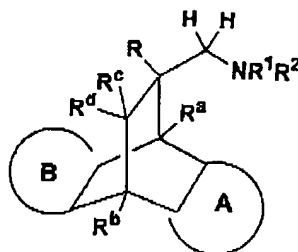
where LG is a leaving group, to form the compound of the structure

U.S. Serial No. 10/621,909

Attorney Docket No. QA0266 NP



27.(Currently Amended) A method for preparing an amine compound having the structure:



including all stereoisomers thereof, or a pharmaceutically acceptable salt thereof, wherein R is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl, arylalkyl, aryloxy, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, cycloalkylalkyl, cyanoalkyl, aminoalkyl, hydroxyalkyl, aryloxyalkyl, or hydroxyaryl;

R^a is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl, aryloxy, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cyano, halogen, heteroarylaminoalkyl, cycloheteroalkylcarbonyl, cyanoalkyl, alkylaminoalkyl, hydroxyalkyl, hydroxyaryl, aryloxyalkyl, nitro, amino, CHO, CO₂ alkyl, CONR^cR^f, CH₂NR^eR^b, CO₂H, CH₂OH, CH₂NHR^g, NHCH₂R^g, NHCHR^gR^h, NHCOR^c, NHCONR^cR^f or NHSO₂R^c;

R^b is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl, aryloxy, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cyano, halogen, heteroarylaminoalkyl, cycloheteroalkylcarbonyl, cyanoalkyl, alkylaminoalkyl, hydroxyalkyl, nitro, amino, CHO, CO₂ alkyl, hydroxyaryl, aryloxyalkyl, CONRⁱR^j, CH₂NR^kR^l, CO₂H, CH₂OH, CH₂NHR^k, NHCH₂R^k, NHCHR^kR^l, NHCORⁱ, NHCONRⁱR^j or NHSO₂Rⁱ;

where R^c and R^f are the same or different and are independently selected from hydrogen, aryl, alkyl, alkenyl, alkynyl, alkoxy, amino, alkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl,

U.S. Serial No. 10/621,909

Attorney Docket No. QA0266 NP

heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, ~~or~~ and cycloalkylalkyl, and R^e and R^f can be taken together with the nitrogen to which they are attached to form a 5-, 6- or 7-membered heteroaryl or cycloheteroalkyl ring which contains 1, 2 or 3 hetero atoms which can be N, O or S;

R^g and R^h are the same or different and are independently selected from hydrogen, aryl, alkyl, alkenyl, alkynyl, alkoxy, amino, alkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, ~~or~~ and cycloalkylalkyl, and R^g and R^h can be taken together with the nitrogen to which they are attached to form a 5-, 6- or 7-membered heteroaryl ring or cycloheteroalkyl ring which contains 1, 2 or 3 hetero atoms which can be N, O or S;

R^i and R^j are the same or different and are independently selected from hydrogen, aryl, alkyl, alkenyl, alkynyl, alkoxy, amino, alkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, ~~or~~ and cycloalkylalkyl, and R^i and R^j can be taken together with the nitrogen to which they are attached to form a 5-, 6- or 7-membered heteroaryl ring or cycloheteroalkyl ring which contains 1, 2 or 3 hetero atoms which can be N, O or S;

R^k and R^l are the same or different and are independently selected from hydrogen, aryl, alkyl, alkenyl, alkynyl, alkoxy, amino, alkoxyalkyl, alkylaminoalkyl, dialkylaminoalkyl, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, cycloalkyl, ~~or~~ and cycloalkylalkyl, and R^k and R^l can be taken together with the nitrogen to which they are attached to form a 5-, 6- or 7-membered heteroaryl ring or cycloheteroalkyl ring which contains 1, 2 or 3 hetero atoms which can be N, O or S;

R^c and R^d are the same or different and are independently selected from hydrogen, alkyl, alkenyl, alkynyl, alkoxy, aryl, hydroxy, aryloxy, heteroaryl, cycloheteroalkyl, heteroarylalkyl, cycloheteroalkylalkyl, hydroxyaryl, ~~or~~ and aryloxyalkyl;

R^c and R^d can be optionally taken together with the carbon to which they are attached to form a 3- to 7-membered ring which may optionally include an O atom or an N atom;

at least one of R^1 and R^2 is heteroaryl and the other of R^1 and R^2 is selected from hydrogen, alkyl, alkenyl, alkynyl, alkoxy, cycloalkyl, cycloalkylalkyl, aryl, heteroaryl, heteroarylalkyl, cycloheteroalkyl, cycloalkenyl, monoalkylaminoalkyl, dialkylaminoalkyl, cycloheteroalkylalkyl, hydroxyaryl, aryloxyalkyl, alkoxyalkyl ~~or~~ and hydroxyalkyl;

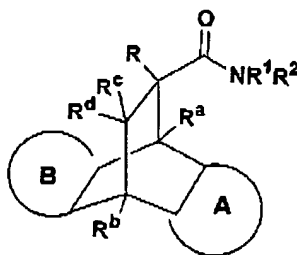
- 52 -

U.S. Serial No. 10/621,909

Attorney Docket No. QA0266 NP

the A ring represents an unsaturated 6-membered carbocyclic ring; and
the B ring represents an unsaturated 6-membered carbocyclic ring;
provided that where least one of R^1 and R^2 is hydrogen, alkyl, alkenyl, cycloalkyl, alkylcycloalkyl, phenyl, alkylphenyl, phenylalkyl, monoalkylaminoalkyl, dialkylaminoalkyl, arylalkyl, aryl, alkoxyalkyl, hydroxyalkyl, or cycloheteroalkyl which is 4,5-dihydro-imidazol-2-yl, piperidinyl or piperazinyl, then (a) the other of R^1 and R^2 is a heteroaryl selected from pyridinyl, pyrimidinyl, pyridazinyl, pyrazinyl or imidazolynyl, and/or (b) at least one of R^a , R^b , R^c and/or R^d is other than hydrogen or C_{1-2} alkyl, and/or (c) R is other than hydrogen or C_1 - C_2 alkyl and/or (d) one of R^c and R^d is other than hydroxyalkyl,

the method comprises treating an amide compound of the structure

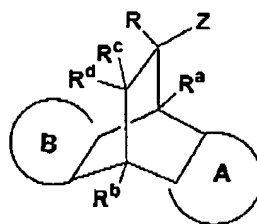


as defined in Claim 1 with a reducing agent to form the corresponding amine compound.

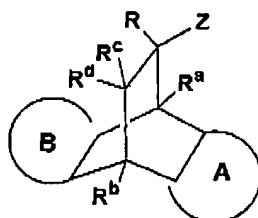
28. (Original) The method as defined in Claim 27 wherein the reducing agent is lithium aluminum hydride.

29. (Original) A method for preparing a compound as defined in Claim 1 where A, B, Z, R , R^a , R^b , R^c or R^d contains a hydroxyaryl group, which comprises providing a compound of the structure

U.S. Serial No. 10/621,909
 Attorney Docket No. QA0266 NP



where one or more of A, B, Z, R, R^a, R^b, R^c or R^d contains aryl-Oalkyl, and reacting the above compound with a dealkylating agent to form a phenol of the structure



where the corresponding A, B, Z, R, R^a, R^b, R^c or R^d contains aryl-OH.

30. (Original) The method as defined in Claim 29 wherein the dealkylating agent is boron tribromide or sodium methyl sulfide.

31. (Original) A method for preparing a compound as defined in Claim 1 wherein R^a or R^b is CH₂OH, CH₂NHR^a, CH₂NR^aR^b, CH₂NHR^k or CH₂NR^kR^l, which comprises providing an aldehyde compound as defined in Claim 1 wherein R^a or R^b is CHO, and subjecting the aldehyde compound to reduction or reductive amination.

32. (Original) A method for preparing an amide compound as defined in Claim 1 where R^a or R^b is NHCH₂R^e, NHCHR^eR^b, NHCH₂R^k or NHCHR^kR^l, which comprises providing an amine compound as defined in Claim 1 where R^a or R^b is NH₂, and subjecting the amine compound to reductive amination.

U.S. Serial No. 10/621,909**Attorney Docket No. QA0266 NP**

33. (Original) A method for preparing an amide compound as defined in Claim 1 where R^a or R^b is $\text{CONR}^f R^j$ or $\text{CONR}^i R^j$, which comprises providing an acid compound as defined in Claim 1 where R^a or R^b is CO_2H , subjecting the acid to amidation to form the corresponding amide.

34. (Original) A method for preparing an amine as defined in Claim 1 where R^a or R^b is NH_2 , which comprises providing a nitro compound as defined in Claim 1 where R^a or R^b is NO_2 and subjecting the nitro compound to reduction to form the corresponding amine compound.